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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,439	04/09/2004	Gary Lemberger		1343

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EXAMINER	
COHEN, AMY R	
ART UNIT	PAPER NUMBER
2859	

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/821,439	LEMBERGER ET AL.	
	Examiner	Art Unit	
	Amy R Cohen	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 12, 61.

2. The drawings are objected to because it appears that "50a" and "50b" in Fig. 6 should be reversed, and "10a" and "10b" in Fig. 9 should be reversed.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of entrance holes in the ferrule must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 12, 14 and 19 are objected to because of the following informalities:

Claim 12 is dependent upon itself. For purposes of prosecution, Examiner interprets claim 12 to be dependent on claim 11.

Claim 14, line 3 "An" should not be capitalized.

Claim 19, line 12 the number "60" appears at the end of the claim, reference numbers should be surrounded by parentheses, or the number should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7, 13-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa et al. (U. S. Patent No. 3,451,418).

Nakagawa et al. teaches a tire valve stem cap (Fig. 2) incorporating a visible air pressure indicator, said cap comprising; a hollow outer tube (58) having a closed transparent upper end and open lower end (Col 4, lines 16-39 and Fig. 2); a stem connector (21, 22) for attachment at

one end to an existing tire valve stem (3), said stem connector being sized for a close fit in the open end of said outer tube (Fig. 2); an indicator (53) comprised of a head conforming to the closed transparent upper end of said outer tube and visible there through (Fig. 2), and a body protruding therefrom (Fig. 2), said indicator further having a central air passage (53a) through the head and body, said indicator being slidable within said outer tube from an up to a down position (Col 4, lines 16-39 and Fig. 2); a compression spring (54) encircling said indicator for biasing said indicator toward said up position (Col 4, lines 16-39); whereby when said tire valve stem cap is engaged on an existing tire valve stem, pressurized air from said tire passes from said tire stem valve through said indicator central air passage to maintain said indicator in equilibrium in said down position against the bias of said spring, but if air pressure in the tire drops below a calibrated level the excess spring bias of said spring will cause said indicator to pop up and become visible inside said transparent end of said outer tube (Col 4, lines 16-39 and lines 70-74).

Nakagawa et al. teaches the tire cap wherein said central through bore of said stem connector is threaded for screw attachment to said tire valve stem (Fig. 2).

Nakagawa et al. teaches the tire cap comprising a collar (22) attached inside the lower open end of said outer tube and around said stem connector; said collar sized for a close friction fit around said stem connector and for insertion into and attachment to said outer tube lower end (Fig. 2 and Col 3, lines 49-65).

Nakagawa et al. teaches the tire cap wherein said lower end of said outer tube is further comprised of an internal annular channel (Fig. 2) and said collar is comprised of a corresponding annular ring (44) for attaching said outer tube onto said collar (Fig. 2).

Nakagawa et al. teaches the tire cap wherein said collar and said lower section of said outer tube are threaded for screw attachment (Fig. 2).

Nakagawa et al. teaches the tire cap wherein said spring is a compression spring (Col 4, lines 16-29).

Nakagawa et al. teaches the tire cap wherein said compression spring has a predetermined compression force (Col 4, lines 16-29).

Nakagawa et al. teaches the tire cap wherein said stem connector is comprised of a hexagonal outer surface for easy wrench tightening (Fig. 8).

Nakagawa et al. teaches a tire valve stem cap incorporating a visible air pressure indicator, said cap comprising: an indicator (53), a spring (54) and a stem connector end fitting (57) housed within a hollow outer tube (58) having a closed transparent upper end and open lower end (Fig. 2); said transparent end having a first sealed space (Col 4, lines 16-39); a stem connector (21, 22) for attachment at one end to an existing tire valve stem (3) and at an opposing end to said end fitting (Fig. 2), said stem connector and end fitting each having central through bores (Fig. 2); said indicator comprised of a head, body and ferrule (Fig. 2), shaped and sized for slideable operation in the end fitting and outer tube (Col 4, lines 16-39); said indicator further having a central air passage (53a) with a plurality of entrance apertures in the ferrule and an exit aperture (Fig. 2, Col 4, lines 16-39), leading to the first seal space, in the head (Fig. 2); a bias spring anchored between said end fitting and indicator head (54, 31), said spring for sliding said indicator away from said end fitting towards said transparent end (Col 4, lines 16-74); whereby when said cap is engaged on an existing tire valve stem, pressurized air from said tire passes from said tire stem valve through said indicator central air passage and into said first sealed

space forcing said indicator in a normally closed (down position) equilibrium against the spring bias of said spring, but if air pressure in the tire drops below a calibrated level the excess spring bias of said spring will cause said indicator to pop up and become visible inside said transparent end of said outer tube (Col 4, lines 16-74).

Nakagawa et al. teaches the tire cap wherein said central through bore of said stem connector is threaded for screw attachment to both said end fitting and said tire stem (Fig. 2).

Nakagawa et al. teaches the tire cap wherein said end fitting is a cylindrical body having an larger diameter upper section and a smaller diameter lower section, for slideably receiving the body and ferrule of the indicator, respectively, and wherein the junction between the upper an lower section is further defined by an annular upper hub with a radial flange for anchoring said spring and said lower section has a threaded outer surface for screw attachment to said stem connector (Fig. 2).

Nakagawa et al. teaches the tire cap wherein a collar (22) is slideably disposed around said stem connector; said collar sized for a close friction fit around said stem connector and for insertion into and attachment to said outer tube lower end (Fig. 2 and Col 3, lines 49-65).

Nakagawa et al. teaches the tire cap wherein said spring is a compression spring having a predetermined compression force (Col 4, lines 16-39).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 8-11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al. in view of Malec (U. S. Patent No. 4,465,013).

Nakagawa et al. discloses the tire cap as described above in paragraph 6 and wherein the indicator is visible through the transparent upper section of the outer tube when popped up and providing 360 degree visibility when said indicator is popped up (Col 4, lines 70-74).

Nakagawa et al. does not disclose a tire cap wherein said indicator head is further defined by a lateral annular groove in order to form a spring bias collar to anchor said spring and to seat a first O-ring to create the upper seal space; wherein said indicator body is further defined by a lateral annular groove for seating a second o-ring and said end fitting further comprises of a plurality of bleed ports corresponding in position to said second o-ring such that when said indicator is fully engaged (seated) in said end fitting the bleed ports are sealed, preventing pressurized air from entering the space beneath the spring bias collar, and when air pressure falls below said calibrated level the indicator slides upward, allowing pressurized air to pass through said bleed ports and creating an additional upward force beneath said collar causing said indicator to pop up; wherein said indicator head is specifically brightly colored; wherein said transparent end of said outer tube is hemispherical for receiving a hemispherical indicator head.

Malec discloses a tire cap (Fig. 3) wherein said indicator head is further defined by a lateral annular groove in order to form a spring bias collar to anchor said spring and to seat a first O-ring to create the upper seal space (Col 2, lines 55-68); wherein said indicator body is further defined by a lateral annular groove for seating a second o-ring and said end fitting further comprises of a plurality of bleed ports corresponding in position to said second o-ring such that

when said indicator is fully engaged (seated) in said end fitting the bleed ports are sealed, preventing pressurized air from entering the space beneath the spring bias collar, and when air pressure falls below said calibrated level the indicator slides upward, allowing pressurized air to pass through said bleed ports and creating an additional upward force beneath said collar causing said indicator to pop up (Col 2, lines 55-68 and Col 3, lines 5-27); wherein said indicator head is specifically brightly colored (Col 1, lines 59-62 and Figs. 3 and 4); wherein said transparent end of said outer tube is hemispherical for receiving a hemispherical indicator head (Figs. 3 and 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tire cap of Nakagawa et al. to include o-rings, a specifically colored indicator head, and a hemispherical shape, as taught by Malec, so that the tire cap would be more accurate in determining a low or high air pressure, so that the indicator would be more clearly visible, and so that the tire cap would be more visually pleasing to the user.

9. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagakawa et al. in view of Badowski (U. S. Patent No. 1,606,740).

Nakagawa et al. discloses the tire cap as described above in paragraph 6 and wherein the indicator is visible through the transparent upper section of the outer tube when popped up and providing 360 degree visibility when said indicator is popped up (Col 4, lines 70-74).

Nakagawa et al. does not disclose a tire cap wherein said transparent end of said outer tube is hemispherical for receiving a hemispherical indicator head; wherein said hemispherical indicator head comprises a flat top having a plurality of ribs for maintaining a clearance against the hemispherical transparent end of said outer tube.

Badowski discloses a tire cap (Fig. 1) wherein said transparent end of said outer tube is hemispherical for receiving a hemispherical indicator head (Figs. 1 and 2; wherein said hemispherical indicator head comprises a flat top having a plurality of ribs for maintaining a clearance against the hemispherical transparent end of said outer tube (Fig. 2, the ribs and the flat top of the indicator head are not numbered).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tire cap of Nakagawa et al. to have a hemispherical end of the outer tube and hemispherical head with a flat top and ribs, as taught by Badowski, in order to be more visually pleasing to the user and so that the indicator head does not extend totally to the end of the outer tube, making the indicator difficult to read.

Conclusion

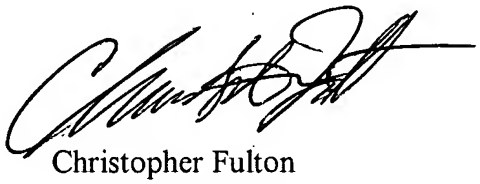
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents disclose tire caps Johnson (U. S. Patent No. 6,588,264), Warihashi (U. S. Patent No. 4,366,708), Graczyk (U. S. Patent No. 4,199,993), Su (U. S. Patent No. 3,929,090), Gfoll (U. S. Patent No. 3.063,463), Poster (U. S. Patent No. 1,807,752), Dailey (U. S. Patent No. 1,565,423), Badowski (U. S. Patent No. 1,499,327), Bromberg (U. S. Patent No. 1,478,506), and Noe (U. S. Patent No. 1,423,447).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC
February 7, 2005



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